5

10

15

WHAT IS CLAIMED IS:

- 1. An apparatus for determining the volume of individual particles in a liquid, the apparatus comprising:
 - (a) a container for suspending particles in a liquid, said container having at least one transparent window;
 - (b) a means for illuminating the suspension with a wavelength of light;
 - (c) a means for measuring the intensity of light that reemerges from said suspension; and
 - (d) a means for changing the thickness of said container by a known amount.
- 2. The apparatus of claim 1 further comprising a microscope.
- 3. The apparatus of claim 1 wherein the container is an optical cuvette.
- 4. The apparatus of claim 3 wherein the optical cuvette comprises at least one transparent window.
- 5. The apparatus of claim 3 wherein the optical cuvette comprises a microscope slide and a cover slip.
 - 6. The apparatus of claim 2 wherein a fixed plunger is provided that comes into contact with said container when said container is moved towards the objective of said microscope.
 - 7. The apparatus of claim 6 wherein the container is an optical cuvette.
- 8. The apparatus of claim 7 wherein the optical cuvette comprises at least one transparent window.
 - 9. The apparatus of claim 7 wherein the optical cuvette comprises a microscope slide and a cover slip.